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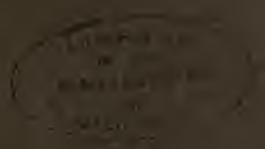
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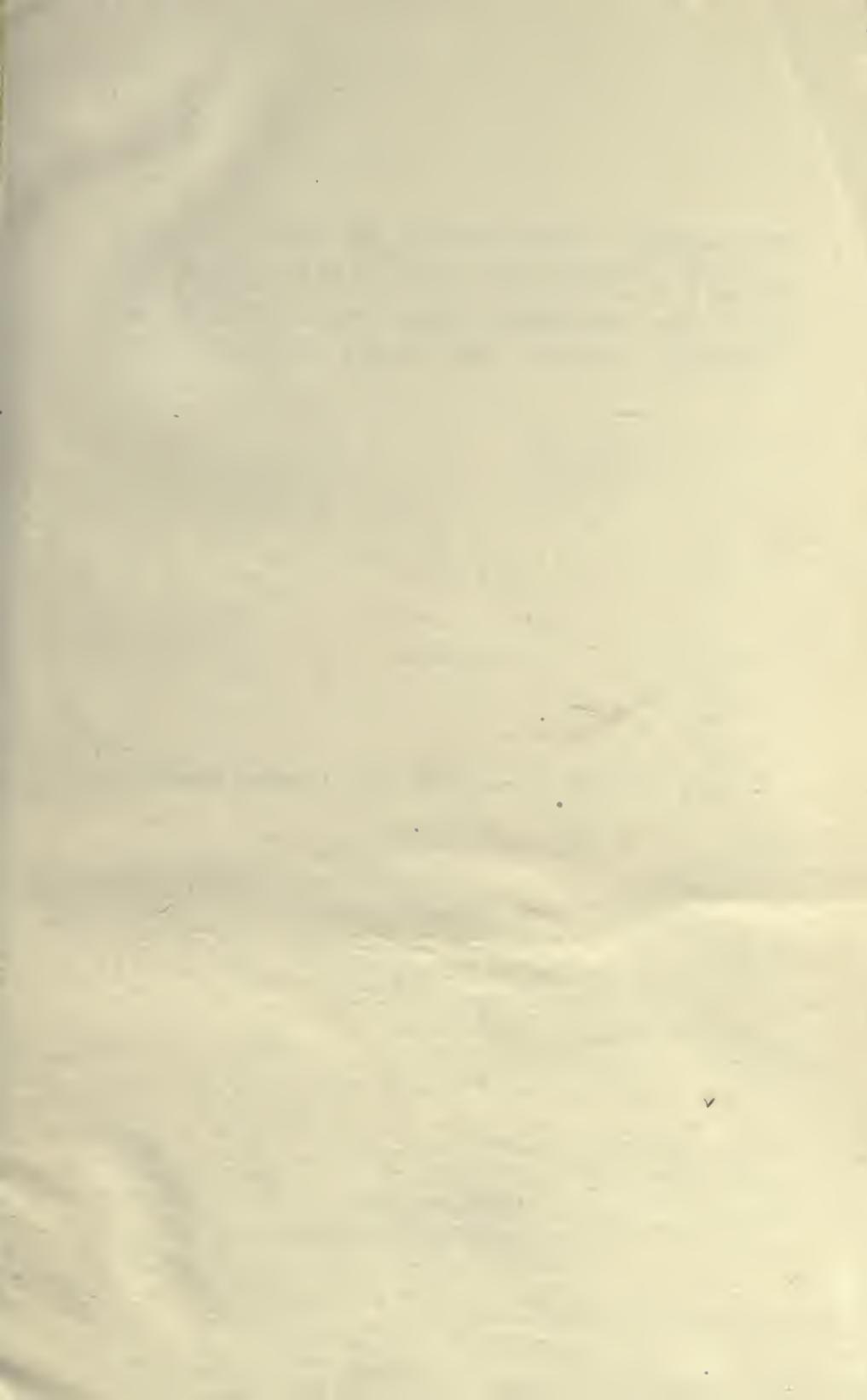


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STONE & WEBSTER MANAGEMENT ASSOCIATION
STANDARD CLASSIFICATION
OF CONSTRUCTION AND OPERATING ACCOUNTS
FOR ELECTRIC LIGHT AND POWER COMPANIES



Adopted January 1, 1913. — Revised to March 31, 1913.



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BOSTON, MASS.
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PREFACE

THIS pamphlet has been compiled for the use and guidance of officials and employees of the Stone & Webster Management Association and of electric light and power companies managed by them (except where companies are subject to government control).

The following classification supersedes the one in effect prior to January, 1913:

In January, 1902, the Stone & Webster organization established a standard system of accounts for the companies under its management, and that system, with minor modifications, has been in use since then. During recent years the Federal and State Commissions, the National Electric Light Association and the American Street Railway Association have given much thought and time to compiling standard classifications of accounts, and the time has arrived when we believe that our classification, which has been in use for many years, should be abandoned.

The problem before us has been that of the selection of a classification which was likely to be adopted, with some modifications, by many of the Commissions, and we have, with the permission of the Commission of the State of Wisconsin, adopted their classification, with modifications, as a basis.

Frequent reference to this book will undoubtedly suggest queries, and comments are therefore invited from all members of our organization throughout the country as a help in the solving of any problems which arise.

Correspondence should be addressed to the Stone & Webster Management Association, Auditing Department, Boston, Mass., with the understanding that such queries, with their respective answers will be assembled and periodically sent to all the companies for their information.

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Income Accounts.

OPERATING REVENUES.

1. Commercial Lighting—Flat Rate.
2. Commercial Lighting—Metered.
3. Municipal Contract Lighting—Arc.
4. Municipal Contract Lighting—Incandescent.
5. Commercial Power—Flat Rate.
6. Commercial Power—Metered.
7. Municipal Power.
8. Power Sales—Other Utilities.
9. Miscellaneous Earnings from Operation.

NON-OPERATING REVENUES.

10. Profit on Merchandise Sales.
11. Profit on Wiring and Installation Work.
12. Rentals.
13. Interest on Deposits.
14. Income from Investments.
15. Miscellaneous Non-Operating Revenues.

OPERATING REVENUES.

1. Commercial Lighting.—Flat Rate.

Credit this account with all revenues from consumers except municipalities for electric current supplied for commercial lighting purposes, including commercial arcs and incandescents, where such energy is sold at flat rates and independent of quantity taken per unit of time, demand or installation.

Commercial consumers as used in this account embrace residences, offices, retail mercantile establishments, etc., where electric energy is not used primarily for power or industrial purposes. Where some manufacturing or industrial processes are performed in any office, store, or residence, or appliances are operated as fans, sewing machine motors, motors for grinding in grocery stores, etc., such processes being merely incidental to the broader use of the premises as commercial lighting consumers and the current so used for industrial or power purposes is not separated, the total consumption at such premises shall be treated as commercial lighting. Where, however, the current used for such appliances, motors, etc., is separated the earnings from each class of service will be credited to the appropriate *Revenue* accounts.

Current sold to municipalities for lighting public buildings, not specifically included in the contract for public lighting, will be considered as commercial earnings and credited to this account.

2. Commercial Lighting.—Metered.

Credit this account with all revenues from consumers except municipalities for electric current supplied for commercial lighting purposes, including commercial arcs and incandescents, where

the revenue is dependent upon the quantity of energy taken as recorded by a meter.

Commercial consumers as used in this account embrace residences, offices, retail mercantile establishments, etc., where electric energy is not used primarily for power or industrial purposes. Where some manufacturing or industrial processes are performed in any office, store, or residence, or appliances are operated as fans, sewing machine motors, motors for grinding in grocery stores, etc., such processes being merely incidental to the broader use of the premises as commercial lighting consumers and the current so used for industrial or power purposes is not separately metered, the total consumption at such premises shall be treated as commercial lighting. Where, however, the current used for such appliances, motors, etc., is metered separately the earnings from each class of service will be credited to the appropriate *Revenue* accounts.

Current sold to municipalities for lighting public buildings, not specifically included in the contract for public lighting, will be considered as commercial earnings and credited to this account.

Where it is the custom of the utility to charge a minimum amount when the consumption during the month is less than a prescribed amount, the total amount of such minimum charge shall be credited to this account.

3. Municipal Contract Lighting.—Arc.

Credit this account with the earnings from the sale of electric current to the municipality for public lighting service, embracing the lighting of streets, alleys, bridges, viaducts, parks, commons,

etc., by arc lamps, but not the lighting of public buildings, unless such are particularly included in the contract covering such public lighting. Where municipal buildings are not so included in the contract for public lighting, they are to be regarded as commercial consumers.

4. Municipal Contract Lighting.—Incandescent.

Credit this account with the earnings from the sale of electric current to the municipality for public lighting service, embracing the lighting of streets, alleys, bridges, viaducts, parks, commons, etc., by incandescent lamps, but not the lighting of public buildings, unless such are particularly included in the contract covering such public lighting. Where municipal buildings are not so included in the contract for public lighting, they are to be regarded as commercial consumers.

5. Commercial Power.—Flat Rate.

Credit this account with all revenue from the sale of electric current for power purposes to all consumers except municipalities, electric railways, and other electric utilities, for the purpose of re-sale, where such energy is sold at flat rates and independent of the quantity taken for any unit of time, demand or installation.

6. Commercial Power.—Metered.

Credit this account with all revenue from the sale of electric current for power purposes to all consumers except municipalities, electric railways and other electric utilities, for the purpose of re-sale, where the service is dependent upon the quantity of energy taken as recorded by meter. Where it is the custom to charge a minimum amount in cases where the consumption during the month is less than a prescribed amount, the total of such minimum charge shall be credited to this account.

7. Municipal Power.

Credit this account with all revenue from the sale of electric current for power purposes to municipalities.

8. Power Sales.—Other Utilities.

Credit to this account all earnings derived from the sale of electric energy to other public utilities for the purpose of redistribution and sale, and to all electric and interurban railway corporations.

9. Miscellaneous Earnings from Operation.

Credit to this account all earnings received from the sale of electric energy and service and from operating transactions not properly includable in any of the preceding accounts.

NON-OPERATING REVENUES.

10. Profit on Merchandise Sales.

Credit to this account the earnings derived from the sale of electric appliances or electric merchandise as lamps, fans, flat-irons, heating appliances, motors, and other electric appliances for the utilization of electric energy. Profit, as used in this account, is defined as being the excess of the sales price over the cost, including the invoice cost, cost of handling, storage, etc.

11. Profit on Wiring and Installation Work.

Credit this account with all earnings derived from and charge with all expense incident to wiring and installation work performed by the utility for a stipulated profit or commission upon its actual outlay for labor, materials and expenses. This includes earnings from services performed on the consumers' premises, such as wiring buildings and structures for lighting or power purposes and rearranging such wiring and connected fixtures. If prospective consumers are charged for services performed by the utility in connecting the wired premises with the service connection or for placing the service wiring, such earnings shall be credited to this account. Where the cost of placing the service wire is charged to the property owner, such work shall not be included in tangible capital.

12. Rentals.

Credit to this account, as it accrues, all revenue from the rental of land and buildings and rentals received for the use of conduits, poles and other line supports and apparatus. Where the contract for the rental of any apparatus or appliances covers also the cost of connecting such apparatus and its maintenance, the entire revenue from such contract shall be credited to this account.

To this account shall be charged all expenses incurred in connection with the collection of rents, commissions and fees therefor; the cost of procuring tenants for buildings, drawing contracts and leases, advertising for tenants of such buildings; expenses of ouster proceedings, and taxes, unless the taxes are to be paid by the tenant. Any expenses accruing while land and buildings are idle, also repairs upon such property, will be charged to this account. Only the net revenue or profit from the above transactions will be shown on the financial report.

13. Interest on Deposits.

Credit to this account all interest on deposits of the utility funds with banks, trust companies or individuals. Interest on security investments will not be credited to this account but to the account *Income from Investments* (Account 14). Interest on moneys belonging to any of the reserves of the utility will be credited to such reserves.

14. Income from Investments.

Credit to this account all interest as it accrues upon interest-bearing securities which are liabilities, either actual or contingent, of solvent companies, cities or individuals, held as investments by the utility.

Credit to this account the cash value, as on the date when they become collectible, of dividends upon the stocks, preferred and common, of corporations held as investments by the utility.

No. 14. *Interest and dividends from investments.* This account is used for dividends when they are not included in the revenue and expense accounts, and for interest and dividends from investments which are not included in the revenue and expense accounts. The interest and dividends from investments which are included in the revenue and expense accounts are not included in this account. This account is used for dividends from investments which are not included in the revenue and expense accounts, and for interest and dividends from investments which are not included in the revenue and expense accounts. The interest and dividends from investments which are not included in this account are not included in the revenue and expense accounts.

15. Miscellaneous Non-Operating Revenues.

Credit to this account all revenues from non-operating sources not includable in any of the preceding accounts.

Operating Expenses.

HYDRAULIC POWER GENERATION.

OPERATION.

- 1-a. Superintendence.
- 1-b. Hydraulic Labor.
- 1-c. Electrical Labor.
- 1-d. Miscellaneous Labor.
- 1-e. Hydraulic Power Purchased.
- 1-f. Lubricants.
- 1-g. Miscellaneous Supplies and Expenses.

MAINTENANCE.

- 2-a. Dams and Intakes.
- 2-b. Flumes and Canals.
- 2-c. Reservoirs and Forebays.
- 2-d. Penstocks and Tail Races.
- 2-e. Wheels and Governors.
- 2-f. Generators.
- 2-g. Auxiliary Equipment—Mechanical.
- 2-h. Auxiliary Equipment—Electrical.
- 2-i. Buildings and Fixtures.

STEAM POWER GENERATION.

OPERATION.

- 3-a. Superintendence.
- 3-b. Boiler Labor.
- 3-c. Engine Labor.
- 3-d. Electrical Labor.
- 3-e. Miscellaneous Labor.
- 3-f. Fuel for Steam.
- 3-g. Water for Steam.
- 3-h. Lubricants.
- 3-i. Miscellaneous Supplies and Expenses.

MAINTENANCE.

- 4-a. Coal and Ash Conveyers.
- 4-b. Boilers and Boiler Equipment.
- 4-c. Engines.
- 4-d. Generators.
- 4-e. Auxiliary Equipment—Mechanical.
- 4-f. Auxiliary Equipment—Electrical.
- 4-g. Buildings and Fixtures.

ELECTRIC POWER PURCHASED.

- 7-a. Electric Power Purchased.
- 7-b. Electric Power Exchanged—Balance.

TRANSMISSION AND CONVERSION OPERATION.

- 9-a. Patrolling Labor.
- 9-b. Miscellaneous Supplies and Expenses.
- 9-c. Sub-Station Labor.
- 9-d. Sub-Station Supplies and Expenses.
- 9-e. Storage Battery Labor.
- 9-f. Storage Battery Supplies and Expenses.

MAINTENANCE.

- 10-a. Transmission System—Overhead.
- 10-b. Transmission System—Underground.
- 10-c. Sub-Station Equipment.
- 10-d. Sub-Station Buildings and Fixtures.
- 10-e. Storage Battery Equipment.
- 10-f. Storage Battery Buildings and Fixtures.

DISTRIBUTION.

OPERATION.

- 11-a. Distribution System Labor.
- 11-b. Miscellaneous Supplies and Expenses.
- 11-c. Changing Meters—Labor.
- 11-d. Inspecting and Testing Meters—Labor.
- 11-e. Meter Department Supplies and Expenses.

MAINTENANCE.

- 12-a. Underground System.
- 12-b. Overhead System.
- 12-c. Transformers.
- 12-d. Meters.

UTILIZATION.

OPERATION.

- 13-a. Inspecting and Trimming Arc Lamps.
- 13-b. Arc Lamp Supplies.
- 13-c. Inspecting Incandescent Lamps.
- 13-d. Incandescent Lamp Renewals.
- 13-e. Miscellaneous Supplies and Expenses.
- 13-f. Customers' Premises Expenses.

MAINTENANCE.

- 14-a. Arc Lamps.
- 14-b. Lamp Fixtures.

COMMERCIAL.

- 15-a. Reading Meters and Delivering Bills.
- 15-b. Collection Salaries and Commissions.
- 15-c. Collection Supplies and Expenses.
- 15-d. Uncollectible Accounts, (Reserve Charge).
- 15-e. New Business Salaries and Commissions.
- 15-f. New Business Supplies and Expenses.

GENERAL EXPENSES.

OPERATION.

- 17-a. Salaries of Officers.
- 17-b. Salaries of Clerks.
- 17-c. Office Rent.
- 17-d. Office Supplies and Expenses.
- 17-e. Law Expenses—General.
- 17-f. Miscellaneous General Expenses.

MAINTENANCE.

- 18-a. Office Equipment.
- 18-b. Office Buildings and Fixtures.

UNDISTRIBUTED.

OPERATION.

- 19-a. Injuries and Damages.
- 19-b. Insurance.
- 19-c. Stationery and Printing.
- 19-d. Stores Department.
- 19-e. Utility Equipment.

MAINTENANCE.

- 20-a. Stores Department.
- 20-b. Utility Equipment and Fixtures.

OPERATING EXPENSE ACCOUNTS.

Operating Expenses are intended to include all items of expense necessarily incurred in being prepared to serve or in serving the public as an electric utility. This includes the expense of maintaining intact the organization of the utility, the generation, distribution and sale of electric energy and all processes necessarily incident thereto, together with the collection of the revenues from such operations. In order that the *Operating Expenses* shall clearly reflect only the cost of rendering such public service, all expenses incident to the operation of any other utility service performed or of any transactions of a commercial nature shall be excluded therefrom.

Operating Expenses in the broadest significance of the term are divisible into two classes, viz., *Operation* and *Maintenance*.

Operation should be understood to mean the "use" of the property and includes labor, materials and supplies, and expenses, but excludes all *Maintenance* items.

Maintenance should be understood to mean "upkeep," and should cover all expenditures for current or ordinary repairs, renewals or replacements of property resulting though wear and tear, or through those casualties which are incidental to the nature of the operation and which expenditures are necessary in order to keep up the productive capacity of the plant to its original or equivalent state of efficiency. When, however, a complete replacement of any building or structure, facility or unit of equipment is made necessary regardless of such current expenditures, the uncurrent or extraordinary repairs, renewals or replacements made necessary will be charged to the *Reserve* accumulated for that purpose.

The items includible in the above subdivisions except where some other meaning is clearly apparent from the language used in explaining the account should be understood to have the following meaning:

The Cost of Labor should be understood to cover not only wages paid for manual labor, but salaries and fees paid to persons engaged in clerical, engineering or supervisory occupations.

Materials and Supplies should be understood to cover the substances or matter consumed in furnishing the electric service as required or authorized by law and embraces not only finished and unfinished products, but all expenses incurred in connection with their preparation for use and specifically chargeable against such products and also includes a portion of the stores expenses, if such materials and supplies pass through the stores department.

Hand Tools because of their liability to loss and theft and their rapid consumption in use are to be considered as operating supplies in the year in which they are purchased and charged to the account for the benefit of which they are purchased.

Expenses should be understood to mean all expenditures made or incurred which are chargeable to the accounts referred to and which are not *Labor* or *Materials and Supplies*.

HYDRAULIC POWER GENERATION.

1-a. Superintendent.

Charge to this account the total cost of superintendence of the hydraulic power generation plant. This account includes the salaries of superintendent of power plant, chemists at plant, draftsmen, foremen and all clerical help upon records and accounts pertaining to hydraulic power generation, whether at the general office or at the plant. Charge also with the proportion of the salaries of engineering staff assignable to the hydraulic power generation plant.

NOTE:—If electrical energy is also generated by steam, the total cost of superintendence at the station will be apportioned over the corresponding *Superintendence* accounts in the different classes of *Power* accounts.

1-b. Hydraulic Labor.

Charge this account with the salaries and wages of all employes operating the hydraulic works, including foremen, gate-men, wheel-men, canal-men, patrollers of reservoirs, dams and channels, and all other employes whose duties concern the operation of the hydraulic power equipment. Exclude maintenance labor.

1-c. Electrical Labor.

Charge to this account all labor in connection with operating electric apparatus and devices driven by hydraulic power, beginning with the generators, direct connected or belted to the hydraulic motive power, and including the power plant switchboards, feeders, terminal board and to where the electric current leaves the power plant switchboard for the transmission or distribution system. This account includes the salaries of system operators or load dispatchers, foremen over regulators, regulators and assistants, generator attendants, switchboard attendants, brushmen, electric wipers, power station wiremen and all other employes whose duties are the operation of the hydraulic power plant electrical equipment. Exclude maintenance labor.

NOTE:—If energy is also generated by steam power at the same station and such electric apparatus is attended jointly by the station electrical labor, such labor cost will be properly apportioned over the respective classes of *Power* accounts.

1-d. Miscellaneous Labor.

Charge this account with the salaries and wages of all employes in and about the hydraulic power generating plant engaged in operating the plant, including watchmen, labor cleaning buildings and yards, janitors, messengers, and general labor not chargeable to any of the foregoing hydraulic power plant operating labor accounts. Exclude maintenance labor.

1-e. Hydraulic Power Purchased.

Charge to this account the cost of all water purchased for the purpose of operating hydraulic motive power equipment for the generating of electric energy.

1-f. Lubricants.

Charge to this account the cost of all lubricants for hydraulic prime movers and machinery connected therewith in the hydraulic power plant of the electric utility and also all lubricants used on electric apparatus driven by hydraulic power. This includes machine oil, dynamo oil, graphite and other lubricants, but does not include transformer oil, wagon grease or oil for lanterns.

NOTE:—If current is also generated at the station by other than hydraulic power, the total cost of lubricants used in the station will be apportioned over the respective classes of *Power* accounts.

1-g. Miscellaneous Supplies and Expenses.

Charge to this account all operating supplies and expenses incurred in the generation of electric energy by hydraulic power

and not chargeable to any of the preceding operating accounts. This includes such items as waste, packing, wipers, hand tools, heating and cleaning power plant, laboratory apparatus and supplies, ice, water for general use and fire protection, and all items of a similar nature.

NOTE:—Where current is also generated at the station by other than hydraulic power, the total cost of such miscellaneous supplies and expenses as herein enumerated will be apportioned over the appropriate accounts in the respective classes of *Power* accounts.

2-a. Dams and Intakes.

Charge to this account the cost of repairing and renewing dams and intakes with their appurtenant gates, valves, weirs, spillways, screens, etc.

2-b. Flumes and Canals.

Charge to this account the cost of repairing and renewing flumes, canals, tunnels or other conduits between the intake gates and the forebay, together with apparatus appurtenant thereto.

2-c. Reservoirs and Forebays.

Charge to this account the cost of repairing and renewing impounding or poundage reservoirs and forebays; this includes repairs to lining walls or bottoms, gate houses and headgate equipment at the head of penstocks.

2-d. Penstocks and Tail Races.

Charge to this account the cost of repairing and renewing penstocks or other pressure pipes between the forebay gates

and the water wheels, and also all waste ways or channels conducting water from the outlet of the draft tube to the point of final discharge.

2-e. Wheels and Governors.

Charge to this account the cost of repairing and renewing water wheels and governors and their accessories, which include all equipment from penstocks to tail races such as gates, valves, pumps, piping, etc., used in connection with the water wheels or governors. Some of the principal items under this account are needle valves, nozzles, deflecting hoods, relief valves, air compressor for surge tanks, pumps for governors and necessary piping in connection therewith.

2-f. Generators.

Charge this account with the expense of all labor and supplies incurred in repairing generators, alternators and other

electric generating apparatus driven by hydraulic power and with repairs to rotaries and motor-generator sets, exciters, etc., when not installed in connection with the transmission system.

2-g. Auxiliary Equipment.—Mechanical.

Charge this account with the expense of all labor and supplies incurred in repairs to auxiliary equipment in the hydraulic power generating plant, including power transmission equipment such as shafting, belting, rope and cable drives, clutches, pulleys and idler wheels, motors, hoists, cranes, blacksmiths' and machinists' tools and all other accessory equipment other than hand tools, the cost of which is to be included in operating expenses.

NOTE:—Where electric energy is also generated at the same plant by steam power, repairs to auxiliary equipment operated for the joint benefit of all methods of current generation will be apportioned over the respective classes of *Power* accounts.

2-h. Auxiliary Equipment.—Electrical.

Charge to this account the expense of all labor and supplies incurred in repairing electrical apparatus at the hydraulic power generating plant not included in the account *Maintenance of Generators*. This includes bus-bars, regulators, cables, switchboards and other power plant electrical equipment such as circuit breakers, switches, ammeters, voltmeters, wattmeters, etc., together with their special foundations and settings and the terminal board. The maintenance of special high tension transmission equipment at the power plant such as high tension bus-bars, high tension switchboards, high tension switches, high tension current transformers, high tension lightning arresters, high tension potential transformers, high tension reactive coils, high tension choke coils, high tension grounding devices and resistances, high tension raising and lowering transformers, etc., shall also be charged to this account. The maintenance of wiring for lighting the hydraulic power plant will not be charged to this account but to the account of *Buildings and Fixtures*—Account 2-i.

NOTE:—If energy is also generated at the station by other than hydraulic power, the maintenance of all apparatus used for the joint benefit of the several methods of generation will be apportioned over the appropriate *Maintenance* accounts in the respective classes of *Power* accounts.

2-i. Buildings and Fixtures.

Charge this account with the expense of all labor and material incurred in repairing buildings, structures and grounds, includ-

ing permanent foundations for apparatus, used exclusively for the generation of electrical energy by hydraulic power, and out-buildings, tool-houses, etc.

NOTE:—If current is also generated by other than hydraulic power, the maintenance of buildings, fixtures and grounds used for the joint benefit of the several methods of generation will be apportioned over the appropriate *Maintenance* accounts in the respective classes of *Power* accounts.

STEAM POWER GENERATION.

3-a. Superintendence.

Charge to this account the total cost of superintendence of the steam power generation plant. This account includes the salaries of the superintendent of power plant, chemists at plant, draftsmen, foremen and all clerical help upon records and accounts pertaining to steam power generation, whether at the general office or at the plant. Charge also with the proportion of the salaries of the engineering staff assignable to the steam power plant.

NOTE:—If energy is also generated by hydraulic power, the total cost of superintendence at the station will be apportioned over the corresponding *Superintendence* accounts.

3-b. Boiler Labor.

Charge this account with all operating labor employed in connection with the generation of steam. This account will be charged with the salaries of superintendent of boiler house, boiler house foremen, firemen, helpers, shovellers, weighers, feed-pump men, stokers, water purification labor, blowing flues, cleaning boilers, labor employed at the boiler plant in handling coal and ashes, boiler plant janitors, watchmen, etc. Exclude maintenance labor.

3-c. Engine Labor.

Charge to this account the cost of all labor engaged in operating steam prime mover equipment. This includes such labor as that of chief engineers and assistants, engineers, oilers, wipers, and all other employes whose duties concern the operation of such steam prime movers. Exclude all maintenance labor.

3-d. Electrical Labor.

Charge to this account all labor in connection with operating the electric apparatus and devices driven by steam power, beginning with the generators, direct connected or belted to the prime movers, and including the power plant switchboards, feeders, terminal board, and to where the electric current leaves the power plant switchboard for the transmission or distribution system. This account includes the salaries of system operators or load dispatchers, foremen over regulators, regulators and assistants, generator attendants, switchboard attendants, brushmen, electric wipers, power plant wiremen and all other employes whose duties are the operation of the steam power plant electrical equipment. Exclude maintenance labor.

NOTE:—If energy is also generated by hydraulic power and such electric apparatus is attended jointly by the station electrical labor, such labor will be properly apportioned over the respective classes of *Power* accounts.

3-e. Miscellaneous Labor.

Charge this account with the salaries and wages of all employes in and about the steam power generating plant, engaged in operating the plant, including watchmen, labor cleaning buildings and yards, janitors, messengers, and general labor not chargeable to any of the foregoing steam power plant operating labor accounts. Exclude maintenance labor.

NOTE:—If energy is also generated at the station by other than steam power, labor charges jointly incurred will be apportioned accordingly over the appropriate classes of *Power* accounts.

3-f. Fuel for Steam.

Charge to this account all fuel used for steam, whether coal, oil, gas or other fuel, at the cost f. o. b. point of delivery at plant for storage. This includes the invoice cost of the fuel, insurance on coal in transit, freight, switching, demurrage, cost of unloading from cars or boats to wagons and cartage to point of delivery at the plant for storage.

Repairs to coal unloading machinery should be used to increase the cost of fuel.

3-g. Water for Steam.

Charge this account with the actual amount of water used for boiler feed and condensing purposes. If the water is purchased, charge at the contract price or the meter rate. If water is pumped by the accounting utility, charge here the cost of pumping. Water for fire protection and general purposes should not be charged to this account. (See *Miscellaneous Supplies and Expenses*—Account 3-i.)

3-h. Lubricants.

Charge to this account the cost of all lubricants for steam prime movers and machinery connected therewith in the steam power plant of the electric utility and also all lubricants used on electric apparatus driven by steam power. This includes cylinder oil, machine oil, dynamo oil, graphite and other lubricants, but does not include transformer oil, wagon grease or oil for lanterns.

3-i. Miscellaneous Supplies and Expenses.

Charge this account with all operating supplies and expenses incurred in the generation of electric energy by steam power not chargeable to any of the preceding accounts. This includes such items as waste, packing, wipers, hand tools, gas and electricity for lighting, heating and cleaning power plant, laboratory apparatus and supplies, ice, water for general use and fire protection, and all items of similar nature.

NOTE:—Where current is also generated at the station by hydraulic power or gas power, the total cost of miscellaneous supplies and expenses as enumerated in this account will be apportioned over the respective classes of *Power* accounts.

4-a. Coal and Ash Conveyers.

Charge this account with all expense of labor and material incurred in repairing coal and ash conveyers in the boiler plant, embracing trolley and cable towers, crushers, belt links, wheels, chutes and gates, conveyor cars, winches, motors, buckets, shafts, chains, etc.

4-b. Boilers and Boiler Equipment.

Charge this account with all expense of labor and material used in repairing furnaces and boilers, special boiler foundations and settings, iron and steel smoke-stacks, feed pumps, water feed pipe, injectors, economizers, water heaters, superheaters, valves, grates, flues, mechanical stoker equipment, boiler room piping from the boiler to the engine throttle valve, steam exhaust system, boiler water supply mains, pumping equipment and similar auxiliary equipment.

4-c. Engines.

Charge this account with the expenses of all labor and materials incurred in repairing steam engines and steam turbines devoted to converting steam energy into mechanical energy for electric generation.

4-d. Generators.

Charge this account with the expense of all labor and material incurred in repairing generators, alternators and other electric generating apparatus driven by steam power, and with repairs to rotaries and motor-generator sets, exciters, etc., when not installed in connection with the transmission system.

4-e. Auxiliary Equipment.—Mechanical.

Charge this account with the expense of all labor and material incurred in making repairs to the steam power plant auxiliary equipment, including condensers, vacuum pumps, oiling systems, the power transmission equipment such as shafting, belting, rope and cable drives, clutches, pulleys and idler wheels, and motors, hoists, cranes, blacksmiths' and machinists' tools, and all other accessory equipment other than hand tools, the cost of which is to be included in *Operating Expenses*.

NOTE:—If electric energy is also generated at the power plant by other than steam power, the cost of maintaining power plant auxiliary equipment used for the joint benefit of the different methods of generation, will be apportioned over the appropriate *Maintenance* accounts of the respective classes of *Power* accounts.

4-f. Auxiliary Equipment.—Electrical.

Charge to this account the expense of all labor and material incurred in repairing electric apparatus at the steam power generating plant not included in the account *Maintenance of Generators*. This includes bus-bars, regulators, cables, switchboards and other power plant electrical equipment such as circuit breakers, switches, ammeters, voltmeters, wattmeters, etc., together with their special foundations and settings and the terminal board. The maintenance of special high tension transmission equipment at the steam power plant, such as high tension bus-bars, high tension switchboards, high tension switches, high tension current transformers, high tension lightning arresters, high tension potential transformers, high tension reactive coils, high tension choke coils, high tension grounding devices and resistances, high tension raising and lowering transformers, etc., will

also be charged to this account. The maintenance of wiring for lighting the power plant will not be charged to this account, but to the account *Buildings and Fixtures*—Account 4-g.

NOTE:—If current is also generated at the station by hydraulic power, the maintenance of all apparatus used jointly in generating current will be apportioned over the appropriate *Maintenance* accounts in the respective groups of *Power* accounts.

4-g. Buildings and Fixtures.

Charge this account with the expense of all labor and material incurred in repairing buildings, structures and grounds, including permanent apparatus foundations, used exclusively for the generation of electric energy by steam power, and outbuildings, tool houses, etc.

NOTE:—If current is also generated by hydraulic power, the maintenance of buildings, fixtures and grounds used jointly will be apportioned over the appropriate *Maintenance* accounts in the respective groups of *Power* accounts.

ELECTRIC POWER PURCHASED.

7-a. Electric Power Purchased.

Charge this account with the cost of all electric current purchased for the purpose of re-distribution and sale.

7-b. Electric Power Exchanged.—Balance.

If a company actually exchanges power with another company, it should charge to this account the value of the power received from the other company, and should credit to this account the value of the power it delivers to the other company, and the amount shown as an operating expense should be the net debit or credit balance.

TRANSMISSION AND CONVERSION.

9-a. Patrolling Labor.

Charge this account with all labor engaged in inspecting and patrolling the transmission system between the high tension switchboard at the point of generation to the sub-stations or transformer stations, including the testing of the line. Exclude maintenance labor.

9-b. Miscellaneous Supplies and Expenses.

Charge to this account all operating supplies and expenses in connection with transmission system.

9-c. Sub-Station Labor.

Charge to this account the cost of all operating labor employed in the superintendence and operation of sub-stations and transformer stations, including salaries and wages of regulators, brushmen and other employes engaged in operating the electric equipment, also the wages of clerks, janitors, watchmen, etc., at such sub-stations and transformer stations.

9-d. Sub-Station Supplies and Expenses.

Charge this account with the cost of all operating supplies consumed and expenses incurred in connection with the opera-

tion of sub-stations and transformer stations, such as rent, light, heat, hand tools, waste, wipers and similar items.

9-e. Storage Battery Labor.

Charge this account with the cost of all operating labor employed in the superintendence and operation of storage batteries, including wages of clerks, inspectors, testers, battery men, etc., and labor incident to the operation of boosters. Exclude maintenance labor.

9-f. Storage Battery Supplies and Expenses.

Charge this account with the cost of all storage battery operating supplies and expenses, embracing such items as acid and distilled water used in the storage battery cells, soda, sponges,

brooms, waste, rags, hydrometers, thermometers, automatic cell fillers, brushes for boosters and compensators, etc. Exclude maintenance supplies.

10-a. Transmission System.—Overhead.

Charge to this account the expense of all labor and material incurred in making repairs to the overhead transmission system. This includes replacement and renewal of poles, painting poles, removing and resetting poles, repairing poles, and pole fixtures, cross arms, insulator pins, insulators, braces, brackets and other pole fixtures and appliances; guys and other supports for holding poles, towers and other structures in position; also replacement and renewal of towers, painting towers, repairs to towers and other appliances for supporting the overhead transmission system and the replacement and renewal of transmission conductors between the generating plant and the sub-station. The cost of maintaining poles, towers and other supporting fixtures which carry both transmission and distribution conductors should be apportioned between this account and the account *Overhead System* (12-b).

10-b. Transmission System.—Underground.

Charge to this account the expense of all labor and material incurred in making repairs to the underground transmission system. This includes repairs and renewals of underground transmission commodities, manholes, sewer connections, sewer traps, and paving, underground and submarine cables, both feeders and mains, together with services in connection with same. The cost of maintaining an underground system used jointly by transmission and distribution conductors should be apportioned between this account and the account *Underground System* (12-a).

10-c. Sub-Station Equipment.

Charge to this account the expense of all labor and material incurred in repairing apparatus in the sub-stations and transformer stations, including transformers, boosters, rotary converters, motor-generator sets, station cables, switchboards and instruments, station terminal boards, etc.

NOTE:—This account does not include the cost of repairing storage battery equipment.

10-d. Sub-Station Buildings and Fixtures.

Charge this account with the expense of all labor and material incurred in repairing sub-station and transformer station buildings, fixtures and grounds, together with all permanent fixtures therein and appurtenant thereto, including work on streets, drives, sidewalks, vaults, pits, sheds and permanent foundations of apparatus.

10-e. Storage Battery Equipment.

Charge this account with the expense of all labor and material incurred in repairing storage battery equipment, as storage battery tanks, switches, regulating apparatus, boosters, compensators, renewal of worn out cells, including diaphragms, negative and positive plates, lead in strip, spelter, dry boards, tin bands, sheet lead, glass plates, glass cover, hydrogen generators, jumpers, clamps, lamp black and items of a similar nature.

10-f. Storage Battery Buildings and Fixtures.

Charge to this account the expense of all labor and material incurred in repairing buildings, fixtures and grounds used exclusively for storage battery purposes. If the storage battery is housed in one of the general power plant buildings or in the sub-station or transformer station buildings, the repairs to such buildings, fixtures and grounds will be apportioned so as to charge to this account the proper proportion of the total cost of repairs to such jointly occupied buildings.

DISTRIBUTION.

11-a. Distribution System Labor.

Charge this account with all operating labor employed in the distribution system not chargeable to any of the following operating labor accounts. Exclude maintenance labor.

11-b. Miscellaneous Supplies and Expenses.

Charge this account with the cost of all supplies consumed and expenses incurred in connection with the operation of the distribution system and not chargeable to any of the following distribution operating accounts. This should include the cost of maps and records, distribution office supplies and expenses and distribution office rent, where such expense is directly chargeable. Exclude maintenance supplies.

11-c. Changing Meters.—Labor.

Charge to this account all labor employed in removing and resetting meters on the premises of consumers and placing meters in the course of regular and periodical inspection of meters. Exclude maintenance labor.

11-d. Inspecting and Testing Meters.—Labor.

Charge this account with all labor employed in testing and inspecting meters both on the premises of consumers and in the meter shop of the utility. Exclude maintenance labor.

11-e. Meter Department Supplies and Expenses.

Charge this account with all supplies consumed and expenses incurred in connection with the operation of the meter department. Tools used in this department, together with the repairs upon the same, will be charged to this account unless such tools are included in the tangible capital of the utility. Expenses such as fuel, supplies, rent, and other similar items, will be charged to this account. This account will embrace all meter

expenses not included in the meter labor accounts and the account *Meters*.—Account 12-d. Exclude maintenance supplies.

12-a. Underground System.

Charge to this account all expenditures for repairs and renewals of underground distribution system, including labor, materials, tools and expenses. This includes repairs and renewals of underground distribution system conduits, manholes, sewer connections, sewer traps and paving; repairs and renewals of underground distribution system conductors; repairs and renewals of underground tube system, including coupling boxes, tubing, junction boxes, manholes and paving in connection therewith; also repairs or renewals of underground distribution system service connections. The cost of maintaining conduits which carry both transmission system conductors and distribution system conductors should be apportioned between this account and the account *Transmission System*.—Account 10-b.

12-b. Overhead System.

Charge to this account all expenditures for repairs and renewals of overhead distribution system, including labor, materials, tools and expenses. This embraces replacement and renewal of poles, painting poles, removing and resetting poles, repairing poles, pole fixtures and appliances, including cross-arms, insulators, insulator pins, braces, brackets, and other pole fixtures and appliances; guys and other supports for holding poles, towers or other structures in position; also replacements and renewals of towers and painting towers. Repairs to towers or other structures or appliances for supporting fixtures which carry both transmission and distribution conductors should be apportioned between this account and the account *Transmission System*—Account 10-a.

Note.—There should also be included in this account the cost of all services which cannot be considered as permanent or whose permanency is doubtful.

12-c. Transformers.

Charge this account with the expense of all labor and materials incurred in maintaining transformers, including changing transformers, renewing oil, repainting, rewinding and repairs to switches and transformer devices which are the property of the utility on the consumers' premises.

12-d. Meters.

Charge this account with the expense of all labor and materials incurred in repairing meters in the distribution system, including re-adjusting and painting old meters, new meter parts, new jewels, cleaning meters and changing meters for routine tests.

UTILIZATION.

13-a. Inspecting and Trimming Arc Lamps.

Charge this account with the labor of trimming and inspecting all arc lamps operated, patrolling arc lamp circuits, locating open circuits, crosses on circuits, and other arc lamp operating labor. Exclude maintenance labor.

13-b. Arc Lamp Supplies.

Charge this account with all operating supplies and materials used in connection with the operation of arc lamps. This includes the cost of carbons, globes, waste, reflectors, ropes and cables for supporting lamps, pulleys, etc.

13-c. Inspecting Incandescent Lamps.

Charge to this account all expenses incident to the inspection of incandescent lamps.

13-d. Incandescent Lamp Renewals.

Charge this account with the cost of renewal of incandescent and Nernst lamps on consumers' premises and also renewing such lamps included in the contract for municipal lighting. Also include the cost of photometering incandescent lamps.

13-e. Miscellaneous Supplies and Expenses.

Charge this account with the cost of all supplies and expenses incident to the utilization of electric energy not chargeable to any of the preceding accounts or to the succeeding account, *Customers' Premises Expenses*. This will include the cost of setting and removing arc lamps, incandescent lamps and fixtures installed in streets, alleys, parks, public grounds, etc., but not the original installation in case such cost is included in tangible capital.

13-f. Customers' Premises Expenses.

Charge to this account all expenditures made in connection with maintaining the efficiency of customers' installations on their premises for which no charge is made to the customers. This should include expenses incurred in investigating complaints, inspecting and testing new wiring and fixtures, wiring customers' premises, repairing wiring and fixtures, inspecting, cleaning and repairing electrical appliances on consumers' premises, and similar items of expense.

14-a. Arc Lamps.

Charge this account with the expense of all labor and supplies incurred in the repair and renewal of arc lamps. This includes the cost of removing lamps, repairing and renewals of lamps in the utility's repair shop, readjusting lamps, renewal of defective parts, renewal of cut-outs, etc.

14-b. Lamp Fixtures.

Charge this account with the expense of all labor and supplies incurred in the repair and renewal of lamp equipment. This includes the cost of removing and readjusting lamp equipment, repairs and renewals of mast arms, hangers, replacement and renewal of lamp posts, including painting and straightening of lamp posts.

COMMERCIAL.

15-a. Reading Meters and Delivering Bills.

Charge this account with all salaries and wages of meter readers and employes engaged in delivering bills for electric current.

15-b. Collection Salaries and Commissions.

Charge this account with all salaries of the collection department employes from the taking of applications for electric service to the depositing of proceeds from collection in the bank. This includes not only the salaries of employes whose entire time is engaged in the collection department, but the proper proportion of the salaries of employes who are partly engaged in other departments. Charge also with fees and commissions paid for collecting bills.

15-c. Collection Supplies and Expenses.

Charge this account with all supplies and expenses of the electric utility collection office, not otherwise provided for, including supplies and expenses of outside collectors.

15-d. Uncollectible Accounts (Reserve Charge).

Charge to this account each month, making a corresponding credit to the *Suspense Bad Bills Account*, an amount which is estimated by its uniform application throughout the year will yield to such reserve fund an amount sufficient to cover all accounts for electrical energy which become uncollectible and are charged to the reserve account because of the removal of the debtor beyond the jurisdiction of the state, the operation of the Statute of Limitations, discharge in bankruptcy, or for any other sufficient reason after diligent effort to collect.

15-e. New Business Salaries and Commissions.

Charge this account with the salaries and wages of all employees whose services are devoted to the promotion and extension of the electric utility business, including canvassers, solicitors, demonstrators, distributors of circulars, and advertising material; also commission paid to canvassers, solicitors and dealers for the introduction and sale of electrical appliances, etc.

15-f. New Business Supplies and Expenses.

Charge to this account the cost of all supplies used and expenses incurred by the promotion of business department. This includes expenses of advertising in newspapers and periodicals, the cost of advertising by means of posters, dodgers, handbills, circulars, car signs, booklets and all related expenses, also the cost of materials and expenses of demonstration and exhibitions.

GENERAL.

17-a. Salaries of Officers.

Charge this account with the salaries of general officers including the president, vice-presidents, secretary, treasurer, assistant treasurer, comptroller, auditor, general manager, and all other officers whose jurisdiction extends over the entire business and whose services are not chargeable to any particular department.

17-b. Salaries of Clerks.

Charge this account with the salaries of all clerks and assistants connected with the general offices, except such as may be directly engaged in other departments, in which case their compensation should be charged to such department directly. Where general office clerks also perform services for other departments, their compensation will be apportioned accordingly and charged to the respective departmental accounts.

17-c. Office Rent.

Charge this account with all rent paid for general offices, and also all expenditures for repairs to rented offices.

17-d. Office Supplies and Expenses.

Charge this account with the cost of all office supplies and expenses, newspapers and periodicals, messenger and janitor service, directories, telegrams, telephone, exchange on remittances, etc.

17-e. Law Expenses.—General.

Charge to this account all law expenses except those incurred in connection with the defense and settlement of injury and damage claims. Charge with salaries and expenses of counsel, solicitors and general attorneys, their clerks, attendants, etc. Charge also with the cost of law books, printing briefs, legal forms, testimony, reports, fees and retainers of general counsel and attorneys, court costs, and payments of specific notarial and

witness fees, expense of taking depositions and other general law and court expenses. Expenses of arbitrators of disputed points will also be charged to this account.

17-f. Miscellaneous General Expenses.

Charge this account with the cost of all miscellaneous general expenses, embracing such items as publishing annual reports in newspapers, advertising notices of stockholders' meetings, dividend notices and other corporate and financial notices of a general character; traveling expenses of the general officers and others connected with the general office, association dues, expenses attending conventions and meetings; subscriptions, donations and gratuities; fees of transfer agents, registrars of stock and fiscal agents; directors' fees, and contingent expenses of management not otherwise provided for.

18-a. Office Equipment.

Charge this account with the expense of all labor and material incurred in the repair of the general office equipment, including furniture and furnishings, office apparatus and appliances.

18-b. Office Buildings and Fixtures.

Charge this account with the expense of all labor and material incurred in the repair of the general office buildings (when such buildings are owned by the utility), fixtures and grounds, including elevators, vaults, heating and lighting fixtures and appurtenant sidewalks, lawns, fences, drives, etc.

19-a. Injuries and Damages.

Charge this account with all damages to or destruction of property other than that owned by the utility, charging with the cost of restoring the property less insurance or legal damages allowed, and with all expenses incident to injury and death to employes and other persons for whose injury or death the utility is held liable or in the settlement of which claim allowances are

made. This embraces judgments for damages and plaintiff's court costs; proportion of salaries and expenses or fees of physicians and surgeons, expenses of undertakers, nurses and hospital attendants; medical and surgical appliances; contributions to hospitals; transportation of injured persons; and wages and salaries paid to employes while disabled. The salaries and expenses of the utility's claim agents, adjusters, and their assistants, will be charged to this account. The compensation of general solicitors and counsel of the utility or other attorneys while engaged in the defense and settlement of damage suits will be charged to this account.

19-b. Insurance.

Charge to this account all premiums paid to insurance companies for fire, casualty, boiler, fidelity, burglar and all other insurance, except insurance on fuel in transit which should be charged to account 3-f, *Fuel for Steam*.

19-c. Stationery and Printing.

Charge to this account all expenses for stationery and printing, stationery supplies and postage, blanks, books, records, etc., except as hereinafter provided for. The cost of printing briefs and other legal papers should be charged to the account *Law Expenses—General* (Account 17-e.) or *Injuries and Damages* (Account 19-a.)

19-d. Stores Department.

Charge this account with the total expense incurred in operating the utility's stores department, including salaries and wages of purchasing agent and his staff, stockkeeper and his staff, clerks and other employes in the stock rooms and storage yards, and such expenses as store room and store yard rent, heat, etc.

19-e. Utility Equipment.

Charge this account with all expenses incurred in operating utility equipment, including salaries and wages of stable employes, drivers, teamsters, chauffeurs, employes operating industrial tramways and other utility apparatus, together with such expenses as water for stable use, feed, bedding, axle grease, blankets, shoeing horses, expense of stabling, gasoline, kerosene, and other equipment supplies of a similar character.

20-a. Stores Department.

Charge this account with all labor and expenses incurred in repairing any equipment of the storage department, including store buildings, fixtures and grounds. Charge with the cost of repairs to loading and unloading machinery, cranes, derricks, hoists, conveying apparatus, etc.

20-b. Utility Equipment and Fixtures.

Charge this account with all labor and expenses incurred in repairing utility equipment buildings, fixtures and grounds, including stables, barns, utility equipment storage structures, stable yards, fences, etc., also the expenses of all labor and material incurred in repairing wagons, drays, trucks, harnesses, automobiles, bicycles, motorcycles, industrial tramways and other utility equipment, and cost of horses purchased to replace others lost by death or worn out in service.

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Construction and Equipment Accounts.

INTANGIBLE.

- C-1. Organization.
- C-2. Franchises.
- C-3. Rights, Licenses, etc.

LANDS.

- C-4. Riparian Lands.
- C-5. Power Plant Land.
- C-6. Sub-Station Land.
- C-7. Storage Battery Land.
- C-8. General Office Land.
- C-9. Stores Department Land.
- C-10. Utility Equipment Land.
- C-11. Other Land.

BUILDINGS AND FIXTURES.

- C-12. Hydraulic Power Plant Bldgs. and Fixtures.
- C-13. Steam Power Plant Bldgs. and Fixtures.
- C-14. Sub-Station Bldgs. and Fixtures.
- C-15. Storage Battery Bldgs. and Fixtures.
- C-16. General Office Bldgs. and Fixtures.
- C-17. Stores Department Bldgs. and Fixtures.
- C-18. Utility Equipment Bldgs. and Fixtures.
- C-19. Other Buildings.

EQUIPMENT.

- C-20. Hydraulic Power Works.
- C-21. Hydraulic Power Plant Equipment.
- C-22. Steam Power Plant Equipment.

- C-23. Transmission System—Overhead.
- C-24. Transmission System—Underground.
- C-25. Sub-Station Equipment.
- C-26. Storage Battery Equipment.
- C-27. Distribution System—Overhead.
- C-28. Distribution System—Underground.
- C-29. Transformers.
- C-30. Meters.
- C-31. Commercial Lamps and Lamp Equipment.
- C-32. General Office Equipment.
- C-33. Stores Department Equipment.
- C-34. Utility Equipment.
- C-35. Miscellaneous Equipment.

MISCELLANEOUS.

- C-36. Miscellaneous Expenditures.
- C-37. Cost of Plant Purchased (in lieu of Plant Constructed).

CONSTRUCTION AND EQUIPMENT ACCOUNTS.

C-1. Organization.

Charge to this account all fees paid to governments for the privilege of incorporation and all fees and other expenditures incident to organizing the electric utility business. This includes the cost of preparing and distributing prospectuses, cost of soliciting subscriptions for stock (but not for loans nor for the purchase of bonds or other evidences of indebtedness), cash fees paid to promoters, and the actual cash value at the time of organization of securities paid to promoters for their services in organizing the enterprise, attorney's fees, cost of preparing and issuing certificates of stock, and other similar expenses. This account shall not be charged with any discounts on securities issued, nor shall it include any costs incident to negotiating loans or selling bonds or any other evidence of indebtedness. Expenses incident to an increase of the capital stock, and the negotiation and sale of stock thereunder, and expenses of preparing and filing certificates of amendment to the articles of incorporation, shall be charged to this account.

C-2. Franchises.

Charge to this account the actual amount paid to the state or to a political subdivision thereof in consideration for any franchise deemed necessary to the conduct of the electric utility service. If any such franchise is acquired by purchase, the charge to this account, in respect thereof, shall not exceed the amount so actually paid therefor by the electric utility to its assignor.

If any franchise has a life of not more than one year after the day when it is placed in service or in effect, it shall not be charged to this account but to the appropriate operating expense account. Similar costs for procuring franchises covering additional territory to be operated as a part of the existing system may be charged to this account. Payments made to state authorities or to any sub-division thereof, in consideration for granting extension of any franchise having a life in service of more than one year from the date of the grant, shall be considered as a renewal. If the franchises cover separate and distinct new enterprises, payments therefor shall be classed as original and charged to this account.

C-3. Rights, Licenses, Etc.

Charge to this account the cost of all rights, licenses and other intangible assets having a life of more than one year from the date when placed in service, acquired by the utility in or under valid patent grants by the United States to inventors for inventions and discoveries which are necessary or valuable to the economical conduct of the electric business, etc. If such right is extended to cover a further period of time than that covered by the original grant, the cost of such extension shall be classed as a renewal. A patent right acquired for use in an existing system and necessary to the economical operation thereof, shall be classed as an addition.

C-4. Riparian Lands.

Charge this account with the cost of all lands bordering on streams or lakes, purchased for flooding or for the right to use, divert, or store water in connection with hydraulic power plants; include also the cost of rights of way for canals, flumes, and pipe lines for conveying water to hydraulic power plants for power purposes. The cost of lands necessary for forebays and pondage immediately connected with hydraulic power plants should be charged to Account C-5, Power Plant Land.

C-5. Power Plant Land.

Charge this account with the cost of all land occupied by the power plant together with all land used and useful in connection with the hydraulic power works, steam plant, power gas plant and all appurtenances thereto, except such items as specified under Account C-4, Riparian Lands.

C-6. Sub-Station Land.

Charge this account with the cost of all land occupied by sub-stations and transformer stations.

C-7. Storage Battery Land.

Charge this account with the cost of all land occupied by the electric storage batteries.

C-8. General Office Land.

Charge this account with the cost of all land occupied by the general office buildings of the electric utility.

C-9. Stores Department Land.

Charge this account with the cost of all land occupied by storage buildings and structures or used as storage yards.

C-10. Utility Equipment Land.

Charge this account with the cost of all land occupied by barns, stables, automobile and vehicle and other utility equipment storage structures and land appurtenant thereto.

C-11. Other Land.

Charge to this account the cost of all land as above defined not included in the preceding accounts.

C-12. Hydraulic Power Plant Buildings and Fixtures.

Charge to this account the cost of all buildings, fixtures and grounds devoted to the generation of electric energy by hydraulic power, including hydraulic buildings and structures, generating station buildings and structures and all buildings and structures

incidental thereto, together with permanent foundations for machinery and apparatus, appurtenant walks, fences, drives, tramways, trestles and all fixtures permanently attached thereto and part thereof.

C-13. Steam Power Plant Buildings and Fixtures.

Charge to this account the cost of all buildings, fixtures and grounds devoted to the generation of electric energy by steam power. Such structures include steam power plant buildings and structures and all buildings incidental thereto, and permanent machinery and apparatus foundations, appurtenant walks, fences, drives, tramways, trestles and all fixtures permanently attached thereto and a part thereof.

C-14. Sub-Station Buildings and Fixtures.

Charge to this account the cost of all buildings, fixtures and grounds devoted to sub-station and transformer station uses,

including permanent foundations and settings for machinery and apparatus, together with appurtenant walks, fences, drives, etc., and fixtures permanently attached to such structures and made a part thereof.

C-15. Storage Battery Buildings and Fixtures.

Charge to this account the cost of all buildings, fixtures and grounds devoted to storage battery purposes, including permanent foundations and settings, together with appurtenant walks, fences, drives, etc., and all fixtures permanently attached to such structures and made a part thereof.

C-16. General Office Buildings and Fixtures.

Charge to this account the cost of all buildings, fixtures and grounds devoted to general office purposes of the electric utility and not includable in any of the preceding departmental buildings accounts, also all fixtures permanently attached thereto and a

part thereof, such as heating and plumbing systems, electric wiring, permanent building vaults, together with appurtenant walks, fences, drives, etc.

C-17. Stores Department Buildings and Fixtures.

Charge to this account the cost of all buildings, fixtures and grounds used for storage purposes, embracing such structures as coal and other fuel storage sheds, distribution and transmission line material storage structures, etc., together with all fixtures permanently attached thereto and a part thereof, as fences, drives, walks, etc.

C-18. Utility Equipment Buildings and Fixtures.

Charge this account with the cost of all buildings, fixtures and grounds devoted to stable, barn, garage or other utility equipment storage purposes, and all fixtures permanently attached thereto and a part thereof, and appurtenant fences, drives, walks, etc.

C-19. Other Buildings.

Charge to this account the cost of all buildings as above defined not included in any of the foregoing accounts.

C-20. Hydraulic Power Works.

Charge to this account the cost of all dams, canals and flumes devoted to the production of hydraulic power and the delivery of water to the head-gate of the water wheels or turbines. Also charge with the cost of wasteways from the outlet of the draft tube to the point of final discharge, including the cost of all gates, valves and other accessories, wasteways, sluices, forebays, etc., in the development of hydraulic power and all accessory canals and aqueducts.

C-21. Hydraulic Power Plant Equipment.

Charge this account with the cost of all water wheels and turbines devoted to the generation of electric energy, their governors and all apparatus appurtenant thereto from the head gates and governors to the wasteways. Charge also with the cost of all electric generating apparatus driven by hydraulic power and rotaries and motor-generator sets, exciters, etc., when not installed in connection with transmission systems, together with their specially provided foundations and settings. Also charge this account with the cost of all electric equipment of the power plant embracing bus-bars, regulators, station switchboards and equipment as circuit breakers, switches, meters and their settings, head gates, motors and other electric apparatus and special high tension transmission equipment at the power plant, such as high tension bus-bars, high tension switchboards, high tension switches, high tension transformers, high tension lightning arresters, high tension potential transformers, high tension reactive coils, high tension choke coils, high tension grounding devices and resistances and high tension step-up and step-down transformers. Belts, pulleys, shafting and other power transmission apparatus in the hydraulic power plant will be charged to this account.

C-22. Steam Power Plant Equipment.

Charge to this account the cost of furnaces, boilers, their foundations and settings when not built in and considered a part of the building, boiler fittings, iron and steel smoke stacks, feed pumps, water feed pipe injectors, economizers, water heaters, superheaters, valves, flues, steam pipes, steam exhaust system, mechanical stokers, cranes, coal and ash conveyers, steam traps, crushers, belt links, wheels, chutes, gates, conveyer cars,

winches, buckets, motors, shafts, chains and similar auxiliary equipment.

Charge this account also with the cost of all steam engines and turbines devoted to the production of electric energy, which shall be considered to include steam prime mover accessories as the throttle valve and the governor, also condensers, air and circulating pumps and lubricating systems. Charge also with the cost of all electric generating apparatus driven by steam prime movers together with rotaries and motor-generator sets, excitors, etc., when not installed in connection with the transmission system. This includes the specially provided foundations and settings of such apparatus. Charge also with all accessory and auxiliary equipment in the steam power generating station, including belts and other transmission equipment, line and counter shafting, pulleys, bus-bars, regulators, station switchboards and equipment such as circuit breakers, switches, meters and their settings, together with special high tension transmission equipment at the steam power station as high tension bus-bars, high tension switchboards, high tension switches, high tension current transformers, high tension lightning arresters, high tension potential transformers, high tension reactive coils, high tension choke coils, high tension grounding devices and resistances, high tension step-up and step-down transformers.

C-23. Transmission System.—Overhead.

Charge this account with the cost of the overhead transmission system, embracing all towers, poles, cross-arms, insulator pins, braces, brackets and other pole fixtures and appliances, guys and other tower and pole supports, and all cables, wires, insulators

and insulator material, etc., constituting the transmission system between the point of electric generation or purchase to the point where it is lowered in voltage or changed as to kind or frequency for the purpose of commercial distribution.

C-24. Transmission System.—Underground.

Charge to this account the cost of underground transmission system equipment, including conduits, manholes, sewer connections, sewer traps, and their accessories, cables, and static relief apparatus outside of stations and sub-stations, constituting the underground transmission system between the point of generation, transformation or purchase and the point where it is lowered in voltage or changed as to kind or frequency for the purpose of commercial distribution.

C-25. Sub-Station Equipment.

Charge to this account the cost of all sub-station and transformer station equipment and apparatus, including the electrical equipment as transformers, motor-generator sets, rotaries, boosters, switchboards, furniture, etc.

C-26. Storage Battery Equipment.

Charge to this account the cost of all storage batteries and storage battery equipment. Where separate buildings and structures have been provided for storage batteries, there will be charged to this account not only the cost of the electrical equipment, but also such other equipment as is a necessary and incidental part of the operation of such battery and included in tangible capital.

C-27. Distribution System.—Overhead.

Charge to this account the cost of the distribution system, embracing all towers, poles, cross-arms, insulator pins, braces, brackets, and other pole fixtures and appliances, guys, and other tower and pole supports, and all cables, wires, insulators, and insulating material constituting the distribution system between the central station switchboard or the sub-station or transformer station to the consumers' premises, including the service wiring, when such wiring can be considered as a permanent installation.

C-28. Distribution System.—Underground.

Charge to this account the cost of underground distribution system equipment, including conduits, manholes, sewer connections, sewer traps, cables and their accessories, Edison tubes, junction boxes and other equipment constituting the underground distribution system between the central station, sub-station or transformer station switchboard and the consumers' premises.

C-29. Transformers.

Charge this account with the cost of all distribution line transformers, both those placed on the premises of the consumer and upon the poles or other supports adjacent thereto. The cost of the original setting of each transformer will be charged to this account. Transformers and transformer devices operated in connection with the transmission system will not be charged to this account but to the account *Sub-Station Equipment*—Account C-24.

C-30. Meters.

Charge to this account the cost of all meters installed for determining the amount of energy delivered to consumers. The cost of the original setting of each meter will be charged to this account if it is the policy of the accounting utility to capitalize the original setting of meters. Subsequent removing and resetting of meters will not be charged to this account, but to operating expenses.

C-31. Commercial Lamps and Lamp Equipment.

Charge to this account the cost of all arc lamps, Nernst lamps, incandescent lamps and all lamp fixtures and equipment devoted to commercial lighting and included in the tangible capital of the utility. Lamps and lamp equipment having an expectancy of life in service of less than one year will not be charged to this account, but will be considered an operating charge.

C-32. General Office Equipment.

Charge to this account the cost of all equipment of the general office of the electric utility, embracing such items as office furniture and furnishings, movable safes, filing cases and devices, typewriters, adding machines, addressographs and sundry office equipment having an expectancy of life in service exceeding one year.

C-33. Stores Department Equipment.

Charge to this account the cost of all equipment of the stores department. This includes loading and unloading machinery, derricks, cranes, hoists, conveying apparatus and equipment, etc.

C-34. Utility Equipment.

Charge this account with the cost of all utility equipment. This includes wagons, drays, trucks, harnesses, horses, automobiles, bicycles, motorcycles, industrial tramways, etc.

C-35. Miscellaneous Equipment.

Charge to this account all equipment not includable in any of the preceding classified capital accounts, embracing such items as shop appliances, shop and laboratory tools, work tools and instruments, street department work tools and instruments, and other miscellaneous equipment.

C-36. Miscellaneous Expenditures.

Charge this account with all expenditures incurred during construction and before the operation of the company or any of its new units. This includes the salaries of all general officers and general office assistants during the period of construction, together with all office supplies and expenses, stationery and printing, law expenses, injuries and damages, insurance, taxes, interest, discount on bonds and any other miscellaneous items of this nature not chargeable to any of the foregoing accounts.

C-37. Cost of Plant Purchased (In Lieu of Plant Constructed).

Charge to this account the cost of the electric plant purchased in case the plant of the utility is obtained by purchase instead of being constructed by it.

GENERAL REMARKS RELATIVE TO MODIFICATIONS.

We believe that all modifications made by us in the classification as adopted by the Railroad Commission of Wisconsin are explained as follows:

FIRST: Changes in titles, order of accounts, accounts omitted, combined or divided into different accounts to meet the peculiar needs of our companies are covered by the statements included herein comparing the modified classifications of Operating and Construction and Equipment accounts with those appearing in the Wisconsin classification.

SECOND: Various notes appearing under different accounts referring to consolidation of accounts, in case the utility comes under Classes "B" or "C," together with such special methods necessary in order to give to the Wisconsin Commission the detail required by them for annual reports, and all matter which concerns directly the Wisconsin Commission and the companies under its jurisdiction, have been eliminated. In no case, however, has this elimination destroyed the integrity of the account. An example of this appears on page 12 of the pamphlet issued January, 1912, third edition, under the account "Sales of Electric Current to Other Public Utilities." From this account we have eliminated the following:

"Sub-accounts are to be opened for each such purchasing utility, the account showing the name of the purchasing utility, the amount of energy purchased and the total earnings from such sales, which details will be called for in annual report to the Railroad Commission."

THIRD: Balance sheet accounts, except detail of Construction and Equipment accounts, are not included, as we believe it better for our use to retain the accounts appropriate or peculiar to each of the companies managed by us.

FOURTH: As the method shown in the Wisconsin classification of caring for Taxes and Deductions from Gross Income are practically in agreement with our present method, we have thought it unnecessary to add this to our edition.

FIFTH: We have also eliminated all matter coming under the heading "Depreciation," as it has been and is our practice to create a depreciation or replacement reserve by a direct charge to Surplus, upon the authority of the Board of Directors of the company concerned. Charges to this reserve account must also be approved by the Board of Directors.

Light and Power Earning Accounts

WISCONSIN CLASSIFICATION.

OPERATING REVENUES.

	S. & W. Nos.
Commercial Lighting Earnings.....	1 & 2*
Municipal Contract Lighting Earnings.....	3 & 4*
Commercial Power Earnings.....	5 & 6
Municipal Power Earnings.....	7
Sales of Electric Current to other Public Utilities.....	8*
Miscellaneous Earnings from Operation.....	9

NON-OPERATING REVENUES.

Profit on Merchandise Sales.....	10
Wiring and Installation Work.....	11
Rents from Lands and Buildings, Conduits, Pole Lines and Apparatus.....	12*
Interest on Deposits.....	13
Interest and Dividends from Investments.....	14*
Appropriations from Municipal Funds (For Municipal Plants)	†
Miscellaneous Non-Operating Revenues.....	15

*Title changed.

†Eliminated.

Operating Expenses

WISCONSIN CLASSIFICATION.

STEAM POWER GENERATION.

OPERATION.

	S. & W. Nos.
1-a. Superintendence	3-a
1-b. Engine Labor.....	3-c
1-c. Electrical Labor.....	3-d
1-d. Miscellaneous Labor.....	3-e
2. Steam Generated.....	†
3. Steam Purchased.....	†
4-a. Lubricants	3-h
4-b. Miscellaneous Power Plant Supplies and Exp...	3-i*

MAINTENANCE.

5-aa. Steam Engines and Turbines.....	4-c*
5-ab. Power Plant Auxiliary Equipment.....	4-e*
5-ac. Generators	4-d
5-ad. Auxiliary Power Plant Electrical Equipment....	4-f*
5-b. Power Plant Buildings, Fixtures and Grounds..	4-g*

GAS POWER GENERATION.

OPERATION.

6-a. Superintendence	†
6-b. Engine Labor.....	†
6-c. Electrical Labor.....	†
6-d. Miscellaneous Labor.....	†
7. Power Gas Produced.....	†
8. Power Gas Purchased.....	†
9-a. Water for Cooling Engines.....	†
9-b. Lubricants	†
9-c. Miscellaneous Power Plant Supplies and Exp...	†

*Title changed.

†Eliminated.

Operating Expenses (Continued)

WISCONSIN CLASSIFICATION.

MAINTENANCE.

	S. & W. Nos.
10-aa. Gas Engines and Turbines.....	†
10-ab. Power Plant Auxiliary Equipment.....	†
10-ac. Generators	†
10-ad. Auxiliary Power Plant Electrical Equipment.....	†
10-b. Power Plant Buildings, Fixtures and Grounds....	†

HYDRAULIC POWER GENERATION.

OPERATION.

11-a. Superintendence	1-a
11-b. Hydraulic Labor.....	1-b
11-c. Electrical Labor.....	1-c
11-d. Miscellaneous Labor.....	1-d
12. Hydraulic Power Purchased.....	1-e
13-a. Lubricants	1-f
13-b. Miscellaneous Power Plant Supplies and Exp...	1-g*

MAINTENANCE.

14-aa. Dams, Canals and Flumes }	2-a, 2-b, 2-c*
14-ab. Turbines and Water Wheels }	2-d, 2-e*
14-ba. Power Plant Auxiliary Equipment.....	2-g*
14-bb. Generators	2-f
14-bc. Auxiliary Power Plant Electrical Equipment...	2-h*
14-c. Power Plant Buildings, Fixtures and Grounds.	2-i*

ELECTRIC CURRENT PURCHASED.

15. Commercial Electric Current Purchased.....	7-a*
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STEAM GENERATION—(Apportionment Account).

OPERATION.

16. Operating Labor.....	3-b*
17. Fuel for Steam.....	3-f
18. Water for Steam.....	3-g
19. Miscellaneous Steam Supplies and Expenses....	3-i†

MAINTENANCE.

20-aa. Boilers and Boiler Auxiliary Equipment.....	4-b*
20-ab. Coal and Ash Handling Equipment.....	4-a*
20-b. Boiler Plant Buildings, Fixtures and Grounds...	4-g*†

*Title changed.

†Combined.

‡Eliminated.

Operating Expenses (Continued)

WISCONSIN CLASSIFICATION.

POWER GAS PRODUCTION—(Apportionment Account).

OPERATION.

	S. & W. Nos.
21. Gas Producer Operating Labor.....	†
22. Gas Producer Fuel.....	†
23. Gas Producer Water.....	†
24. Miscellaneous Gas Producer Supplies and Exp...	†

MAINTENANCE.

25-aa. Gas Producer and Gas Producer Equipment....	†
25-ab. Coal and Ash Handling Equipment.....	†
25-b. Gas Producer Buildings, Fixtures and Grounds..	†

ELECTRIC POWER—(Apportionment Account).

26. Electric Utility Proportion of Total Power.....	†
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TRANSMISSION AND TRANSFORMATION.*

OPERATION.

27-a. Inspecting and Patrolling Transmission System..	9-a*
27-b. Sub-Station and Transformer Station Operating Labor	9-c*
27-c. Sub-Station and Transformer Station Supplies and Expenses.....	9-d*

MAINTENANCE.

28-a. Transmission System.....	10-a
28-b. Sub-Station and Transformer Station Equipment	10-b*
28-c. Sub-Station and Transformer Station Buildings, Fixtures and Grounds.....	10-c*

*Title changed.

†Eliminated.

Operating Expenses (Continued)

WISCONSIN CLASSIFICATION.

STORAGE.‡

OPERATION.

S. & W.
Nos.

29-a.	Storage Battery Operating Labor.....	9-e*
29-b.	Storage Battery Supplies and Expenses.....	9-f

MAINTENANCE.

30-a.	Storage Battery Equipment.....	10-d
30-b.	Storage Battery Buildings, Fixtures and Grounds	10-e*

DISTRIBUTION.

OPERATION.

31-a.	Labor Inspecting, Removing and Resetting Transformers	11-a*
31-b.	Labor Removing and Resetting Meters.....	11-c*
31-c.	Labor Inspecting and Testing Meters.....	11-d*
31-d.	Misc. Distribution System Operating Labor.....	11-a*†
32-a.	Meter Department Supplies and Expenses.....	11-e
32-b.	Misc. Distribution System Supplies and Exp....	11-b*

MAINTENANCE.

33-aa.	Overhead Distribution System.....	12-b*
33-ab.	Underground Distribution System.....	12-a*
33-b.	Transformers	12-c
34.	Meters	12-d

CONSUMPTION.*

OPERATION.

35.	Trimming and Inspecting Lamps.....	13-a, 13-c*
36.	Lamp Supplies.....	13-b*
37.	Incandescent Lamp Renewals.....	13-d
38.	Miscellaneous Consumption Supplies and Exp...	13-e*
39.	Customers' Premises Expenses.....	13-f

MAINTENANCE.

40.	Lamps	14-a, 14-b*
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*Title changed.

†Combined.

‡Eliminated.

Operating Expenses (Continued)

WISCONSIN CLASSIFICATION.

COMMERCIAL.

	S. & W. Nos.
41-aa. Collection Salaries and Commissions.....	15-b
41-ab. Reading Meters and Delivering Bills.....	15-a
41-ac. Collection Supplies and Expenses.....	15-c
41-ad. Uncollectible Accounts (Reserve Charge).....	15-d
41-ba. Promotion of Business Salaries and Commissions	15-e*
41-bb. Promotion of Business Supplies and Expenses..	15-f*

GENERAL.

OPERATION.

42-a. Salaries of General Officers.....	17-a*
42-b. Salaries of General Office Clerks.....	17-b*
43-a. General Office Rent.....	17-c*
43-b. Miscellaneous General Office Supplies and Exp..	17-d*
44-a. Law Expenses General.....	17-e
44-b. Miscellaneous General Expenses.....	17-f
44-c. Railroad Commission Expenses.....	‡

MAINTENANCE.

45-a. General Office Equipment.....	18-a*
45-b. General Office Buildings, Fixtures and Grounds.	18-b*

UNDISTRIBUTED.

46-a. Injuries and Damages.....	19-a
46-b. Insurance	19-b
46-c. Stationery and Printing.....	19-c
46-d. Operation of Stores Department.....	19-d*
46-e. Stores Department Equipment	}
46-f. Stores Dept. Bldgs., Fixtures and Grounds	20-a*
46-g. Operation of Utility Equipment.....	19-e*
46-h. Maintenance of Utility Equipment	}
46-i. Maintenance of Utility Buildings, Fixtures and Grounds	20-b*

*Title changed.

†Eliminated.

Construction and Equipment Accounts

WISCONSIN CLASSIFICATION.

INTANGIBLE.

	S. & W. Nos.
Organization	1
Franchises	2
Rights, Licenses, etc.....	3

TANGIBLE

LANDS USED IN OPERATION OF PROPERTY..... †

Power Plant Land.....	5
Sub-Station and Transformer Station Land.....	6*
Storage Battery Land.....	7
General Office Land.....	8
Stores Department Land.....	9
Utility Equipment Land.....	10

BUILDINGS, FIXTURES AND GROUNDS (USED IN OPERATION OF PROPERTY)..... †

Steam Power Plant Bldgs. Fixtures and Grounds.....	12*
Gas Power Plant Bldgs. Fixtures and Grounds.....	†
Hydraulic Power Plant Bldgs. Fixtures and Grounds.....	11*
Boiler Plant Bldgs. Fixtures and Grounds.....	12*§
Gas Producer Plant Bldgs. Fixtures and Grounds.....	†
Sub-Station and Transformer Station Bldgs. Fixtures and Grounds.....	13*
Storage Battery Bldgs. Fixtures and Grounds.....	14*
General Office Bldgs. Fixtures and Grounds.....	15*
Stores Department Bldgs. Fixtures and Grounds.....	16*
Utility Equipment Bldgs. Fixtures and Grounds.....	17*

*Title changed.

†Eliminated.

§Combined.

Construction and Equipment Accounts

WISCONSIN CLASSIFICATION.

	S. & W. Nos.
POWER PLANT EQUIPMENT.....	†
Steam Power Plant Equipment.....	20
Gas Power Plant Equipment.....	†
Hydraulic Power Works.....	18
Hydraulic Power Plant Equipment.....	19
Boiler Plant Equipment.....	20*§
Gas Producer Equipment.....	†
Transmission System.....	21
Sub-Station and Transformer Station Equipment.....	22*
Storage Battery Equipment.....	23
Distribution System.....	24
Transformers	25
Meters	26
Commercial Lamps and Lamp Equipment.....	27
Municipal Contract Lighting System.....	†
General Office Equipment.....	28
Stores Department Equipment.....	29
Utility Equipment.....	30
Miscellaneous Equipment.....	31
MISCELLANEOUS CONSTRUCTION AND EQUIPMENT	
EXPENDITURES	†
Salaries during Construction.....	
Office Supplies and Expenses during Construction	
Stationery and Printing during Construction.....	
Law Expenses during Construction.....	
Injuries and Damages during Construction.....	
Insurance during Construction.....	
Taxes during Construction.....	
Interest during Construction.....	
Discount on Bonds during Construction.....	
Miscellaneous Expenditures during Construction.....	
Cost of Plant Purchased (in lieu of Plant constructed)	33

*Title changed.

†Eliminated.

§Combined.

Lepidoptera

ALPHABETICAL LIST OF ARTICLES

(In some instances items have been marked *, as it will be readily seen that such items are likely to affect a large percentage of the accounts in this system, and it would be impractical to enumerate, in this list, all of these accounts.)

A

Acid, hydro fluoric.....	*
Adding machines	18-a
Adding machine ribbons.....	17-d
Addressographs	18-a
Addressograph stencils.....	17-d
Adjusters' expenses and salaries.....	19-a
Advertising	15-f, 17-f
Air compressors and storage tanks.....	2-g, 4-e
Air hose.....	1-g, 3-i
Air mufflers.....	2-g, 4-e
Air pumps.....	2-g, 4-e
Alarm bells.....	*
Alcohol	*
Alternators	2-f, 4-d
Aluminum wire.....	10-a
Ammeters (electric plant).....	2-h, 4-f, 10-c
Ammonia	*
Analysis of coal.....	3-f
Analysis of oil (lubricants).....	1-f, 3-h
Analysis of oil (fuel).....	3-f
Anchors, guy.....	10-a, 12-b
Anchor rods.....	4-a, 10-a, 12-b
Angle iron.....	*
Annunciator wire.....	*
Annunciators	*
Appliances, engine.....	4-c, 4-e
Aqueducts	2-b, 2-d, 4-b
Architects	*
Architect fees.....	1-a, 3-a, 13-f
Arc lamp cut outs.....	14-b
Arc lamp electrodes	13-a
Arc lamp globes.....	13-b
Arc lamp insulators.....	14-b
Arc lamp outriggers.....	14-b
Arc lamp posts.....	14-b
Arc lamp reflectors.....	14-b
Arc lamp regulators.....	14-b
Arc lamp shades.....	13-b
Arc lamp street hoods.....	14-b
Arc lamp suspension pulleys.....	14-b
Arc lamps	13-a, 13-b, 14-a
Arc panels	2-h, 4-f, 10-c
Arc rectifiers, mercury.....	2-h, 4-f, 10-c, 20-b
Arcts, Mazda.....	13-d
Armalac	2-f, 2-h, 4-d, 4-f, 10-c, 14-a
Armatures	2-f, 2-h, 4-d, 4-f, 10-c
Armature coils	2-f, 2-h, 4-d, 4-f, 10-c

Armature winders (mechanics)	2-f, 4-d, 10-c
Arm rests	17-a
Arms, spreader.....	10-a, 12-b
Arresters, lightning.....	Buildings
Asbestos	*
Ash conveying machinery (steam plant).....	4-a
Ash conveyors	4-a
Asphalt	*
Assistant General Manager	17-a
Association dues.....	17-f
Atmospheric relief valves.....	Bldgs
Attachment Plugs.....	*
Attorneys' expenses, fees and salaries.....	17-e, 19-a
Auditor, resident	17-a
Auditor, traveling	17-f
Augers	*
Automatic switching devices (coal conveyors).....	4-a
Automobile incandescent lamps.....	19-e
Automobile supplies	19-e
Auxiliary heaters.....	4-b
Awnings	*
Axes	*

B

Babbitt metal.....	*
Badges, employes'	13-e, 15-c, *
Baffle plates.....	4-b
Bags, filter.....	3-i
Barbed wire.....	*
Barns	20-b
Barometric Condensers	4-e
Barrels, water	*
Bars, commutator	2-h, 2-f, 4-d, 4-f, 10-c

Bases, motor	2-h, 4-f
Baskets, desk	17-d
Baskets, inner globe	13-e
Baskets, waste paper	*
Battery charging outfits (autos)	20-b
Battery jars	*
Batteries, operating storage (labor)	9-e
Batteries, storage (sub-station)	9-f, 10-e
Battery parts	*
Beams, T	*
Bearings (motor, shaft, step, etc.)	*
Bedding, stable	19-e
Bellows	*
Bells, alarm	*
Belt fixtures	*
Belting	*
Bicycles	19-e, 20-b
Binders (office)	17-d
Binding wire	2-f, 4-d, 10-c
Bit braces	*
Blacksmiths' tools	*
Blank books	19-c
Blank forms	19-c
Blankets, stable	19-e
Blocks, tackle	*
Blotters, or blotting paper	19-c
Blow torches	*
Blower sets	2-g, 4-e, 10-c
Blowers	2-g, 4-e, 10-c
Blow-off piping	4-b
Blow-off valves	4-b
Blue print and black line paper	*
Blue vitrol	*
Boards, flash	2-a
Boards, terminal	2-h, 4-f, 10-c
Boats	2-a, 2-b, 2-c, 2-d
Boilers	4-b
Boiler appliances	4-b
Boiler cleaners (labor)	3-b
Boiler compound	3-i
Boiler feed pumps	4-b
Boiler fittings	4-b
Boiler flues	4-b
Boiler house foreman	3-b
Boiler house superintendent	3-b
Boiler inspection	3-i
Boiler insurance	19-b
Boiler labor	3-b
Boiler room tools	3-i
Boiler settings	4-b
Boiler tubes	4-b
Boiler tube cleaners (tool)	3-i
Bolts	*
Books (accounting)	19-c
Book cases	18-a
Bookkeepers	17-b
Booklets (new business)	15-f
Booms	2-a, 2-b, 2-c
Boosters	10-c

Borax *
Boring tools *
Boxes, crank pin	4-c
Boxes for lightning arresters	2-h, 4-f, 10-a, 10-b, 10-c, 12-b
Boxes, switch, etc. *
Braces, cross arm	10-a, 12-b
Braces, outrigger	12-b, 14-b
Bracket hoods	14-b
Bracket insulators	10-a, 12-b
Brackets, lamp	13-f, 14-b
Brackets, line	10-a, 12-b
Brackets, roof	12-b
Breakers, automatic circuit	2-h, 4-f, 10-a, 10-b, 10-c, 10-e, 12-a, 12-b
Breast drills *
Bricks *
Brick drills *
Bridge tenders	2-a, 2-b, 2-c
Bridge rentals (to corporations)	Taxes
Bridge rentals (to municipalities)	Taxes
Bridges	2-a, 2-b, 2-c
Briefs, law	17-e, 19-a
Brooms *
Brush holders and parts, generator	2-f, 4-d, 10-c
Brushes *
Brushes, flue	3-i
Brushes, generator	1-g, 3-i, 9-d
Brushes, horse	19-e
Buckets *
Buckles, turn *
Buggies (replacement or repair parts)	20-b
Builders' hardware	Buildings
Building material	Buildings
Building permits	Buildings
Bull rings	4-c
Bulletin boards *
Burglary insurance	19-b
Bus bars	2-h, 4-f, 10-c
Bus bar connections	2-h, 4-f, 10-c
Bus bar fittings	2-h, 4-f, 10-c
Bushings *
Buzzers *

C

Cabinets, wood and steel.....	*
Cable clamps	*
Cable hangers	10-a
Cable lugs	*
Cable racks for manholes.....	12-a
Cable sleeves	*
Cable (wire)	10-a, 10-b
Calipers	*
Calorimeter	4-b
Canal	2-b
Canal men	1-b
Candles	*
Cans, oil	*
Cans for rubbish.....	*
Cans for waste.....	1-g, 3-i, 9-d, 9-f
Cant hooks	9-b, 11-b
Canvassing and soliciting (labor).....	15-e
Canvassing and soliciting supplies.....	15-f
Carbolineum	10-a, 12-a, 12-b
Carbon bag	13-a
Carbon brushes	1-g, 3-i, 9-d
Carbon cutters	13-a
Carbon packing	*
Carbon paper	17-d
Carbons, arc lamp.....	13-b
Carborundum wheels	*
Card holders	*
Cards, indicator	*
Carfare	*
Carpenters	*
Cars, coal	4-a
Cartridge fuse cut-outs.....	*
Cartridge fuses	*
Carts	20-b
Cases, centrifugal pump.....	4-e
Cases, transformer	12-c
Cases, wheel	2-e
Cashiers	17-b
Casualty insurance	19-b
Caulking tools	*
Cells, (storage battery)	10-e
Cement	*
Centrifugal pump cases.....	4-e
Centrifugal pump glands.....	4-e
Centrifugal pump runners.....	4-e
Centrifugal pump shafts.....	4-e
Centrifugal pumps	4-e
Chain	*
Chain drives	4-a
Chain falls	2-g, 4-e
Chains (automobile)	20-b
Chains (surveyor)	*
Chalk	*
Chamois skin	*
Changers, frequency	10-c
Charcoal	*
Charts, recording	*

Chauffeur	19-e
Checks	19-c
Check valves	4-b, 4-e
Chemists	1-a, 3-a
Chief Engineer	3-c
Chisels *
Choke coils	2-h, 4-f, 10-c
Circuit breaker insulators	10-a, 10-b, 12-b
Circuit breakers	2-h, 4-f, 10-a, 10-b, 10-c, 10-e, 12-a, 12-b
Circuit panels	2-h, 4-f, 10-c
Circuit plugs	2-h, 4-f, 10-c
Circular loom *
Circulars (new business)	15-f
Circulating pumps	4-e
Cisterns *
Claim agent's expenses and salaries	19-a
Claims	17-e, 19-a
Clamps *
Clamps, cable *
Clamps, ground	9-b, 11-b
Clamps, guy	10-a, 12-b
Clay tubes *
Cleaners, boiler tube	3-i
Cleats *
Cleats and knobs (porcelain) *
Clerks *
Climbers (linemen's)	9-b, 11-b
Clincher ears	10-a, 12-b
Clips *
Clocks *
Cloth, emery *
Club dues	17-f
Clutches	4-e, 4-a
Coal	3-f
Coal buckets	4-a
Coal cars	4-a
Coal conveyers	4-a
Coal conveying machinery	4-a
Coal crushers	4-a
Coal hods *
Coal passers	3-b
Coal sampling jars	3-i
Coal scoop	4-a
Coal tubs	4-a
Coils, armature	2-f, 2-h, 4-d, 4-f, 10-c
Coils, field	2-f, 2-h, 4-d, 4-f, 10-c
Coils, resistance	2-h, 4-f, 10-c
Coils, rheostat	2-h, 4-f, 10-c
Coils, rotor	2-h, 4-f, 10-c
Coils, spark	20-b
Coils, stator	2-h, 4-f, 10-c
Coin bags	17-d
Coin wrappers	17-d
Coke *
Cold well (re-condenser)	4-e
Collars (wheel)	2-e
Collector rings	2-f, 4-d
Columns (water)	4-b
Commutator bars	2-f, 2-h, 4-d, 4-f, 10-c

Commutator compound	*
Commutator mica	2-f, 2-h, 4-d, 4-f, 10-c
Commutator stone	3-i, 1-g
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